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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/654,587	09/01/2000	Kar-Wing Edward Lor	P108339-09045	7189
32294	7590	12/16/2004	EXAMINER	
SQUIRE, SANDERS & DEMPSEY L.L.P.			LEVITAN, DMITRY	
14TH FLOOR				
8000 TOWERS CRESCENT			ART UNIT	
TYSONS CORNER, VA 22182			PAPER NUMBER	
			2662	

DATE MAILED: 12/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/654,587	<b>Applicant(s)</b> LOR ET AL.	
	<b>Examiner</b> Dmitry Levitan	<b>Art Unit</b> 2662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 7-9 and 11-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8,9,11-20, 27-29, 31-33 is/are rejected.
- 7) ☒ Claim(s) 7,21-26 and 30 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |  |
|---|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

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Amendment, filed 09/20/04, has been entered. Claims 7-9 and 11-33 remain pending.

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8, 9, 11, 13-20 and 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baum in view of Curry (US 6,233,234).

2. Regarding claims 11, 15-17 and 20, Baum substantially teaches the limitations of the claims:

A method for switching VOIP packets (phone call from computer 326 through IP network 310 on Fig. 3 and 5:24-31), comprising the steps of

Receiving a first packet in a network switch (firewall 338 including switch 342 on Fig. 3 and 5:39-51),

Determining if the first packet is a VOIP packet (authenticating a request at the control center 330 on Fig. 3 and 6:36-62),

Determining a dynamically negotiated VOIP port for VOIP session from at least one of the first packet and a second packet received in the switch, if the first packet is the VOIP packet (dynamically setting security rules to a port 5:61-67 and confirming the port authorization by the control processor 344 on Fig. 3 and 7:30-33), and

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Classifying all subsequent VOIP packets corresponding to the VOIP port in accordance with the predetermined parameters (monitoring every packet for conformance to the set of security specifications 7:41-55, classifying the packets as belonging to this single conversation),

Wherein the step of classifying all subsequent VOIP packets comprises

Storing the VOIP port (inherently part of the system, because Baum teaches setting the security rules including the negotiated port for the duration of the conversation, what means storing the rules, including the port),

Filtering all packets coming through the switch, associated with the VOIP port (filtering the packets 7:41-52),

Classifying filtered packets in accordance with predefined filter actions (classifying the packets as belonging to this single conversation 7:41-55), and

Wherein the step of storing the VOIP port comprises generating a filter corresponding to the VOIP port (firewall filter contains the negotiated port, so storing the port is essential part of the filter parameters generation) and fast filtering processor (firewall).

Baum does not teach storing the generated filter in a filter table.

Curry teaches storing the generated filter in a filter table (filter tables on 5:64-67 and 6:1-14).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add storing the generated filter in a filter table associated with a fast filtering processor of Curry to the system of Baum to reduce the system delay by improving its search capabilities by utilizing the stored filter tables.

In addition, regarding claims 15-17, Baum teaches trapping VOIP call setup message (valid Q.931 message 6:51-63), fast filtering processor (firewall 340 on Fig. 3) and capabilities exchange protocol message (protocol on 7:16-25 including bearer capability 7:20).

3. Regarding claim 8, Baum teaches extracting the negotiated VOIP port from the first packet and sending the second packet to a CPU for decoding and extraction of the VOIP port (the port is part of the security set, extracted from all packets, as all the packets are monitored at firewall/CPU for the security conformance 7:41-52).

4. Regarding claims 13 and 14, Baum teaches taking a filtering action/dropping the packet (inherently part of the system, because Baum teaches use of firewall and firewalls drop unauthorized packets).

5. Regarding claim 27, memory management, memory and data port interfaces, messaging exchange between these elements and a communication channel are inherently part of the filter table storage, because all these elements are essential for any memory storage unit.

6. Regarding claim 29, Baum teaches fast filtering processor programmable by inputs from a CPU through a CPU interface (firewall 340 is programmable during the call setup by a customer PC, inherently containing a CPU, as disclosed on 6:35-62).

7. Regarding claim 9, Baum and Carry teach all limitations of parent claim 11.

Baum and Carry do not teach real time (RTP) port.

Official notice is taken that real time (RTP) port is well known in the art for use with real time traffic like voice or video.

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to add real time (RTP) port to the system of Baum and Carry to improve the system operation with voice traffic to make the conversation coherent.

8. Regarding claim 28, Baum and Carry teach all the limitations of parent claim 27.

Baum and Carry do not teach memory interface comprising an internal memory and external memory interface.

Official notice is taken that memory interface comprising an internal memory and external memory interface is well known in the art, as well known Personal computers comprise an internal memory (RAM) with an external memory (hard disk memory) including an interface between them.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add memory interface comprising an internal memory and external memory interface to the system of Baum and Carry to improve the system reliability, in case one of the memories will fail.

9. Regarding claims 18 and 19 Baum and Carry teach all limitations of parent claim 15.

Baum and Carry do not teach changing priority of the packet to reduce network transmission delay for the packet.

Official notice is taken that changing priority of the packet to reduce network transmission delay for the packet is well known in the art, as some customer's traffic with lower priority can be dropped in the network congestion environment.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add changing priority of the packet to reduce network transmission delay for the packet to the

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system of Baum and Carry to improve the system operation with voice traffic giving priority to certain packets.

10. Claims 12 and 31-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baum in view of Carry in further view of Klein (US 6,085,328).

Baum and Carry substantially teaches all the limitations of parent claims 11, 31 and 32 (see claim 11 rejection above), including storing a known port in the filtering table.

Baum and Carry does not teach using a mask to compare the information in the packet with a filter table.

Klein teaches using a mask to compare the information in the packet with a filter table (applying filter mask to a packet header, extracting unmasked portion and matching it to predefined values Fig. 4 and 5:66-67, 6:1-28).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a mask to compare the information in the packet with a filter table of Klein in the system of Baum and Carry to incorporate well known technique in the system.

***Allowable Subject Matter***

11. Claims 7, 21-26 and 30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

12. Applicant's arguments filed 09/20/04 have been fully considered but they are not persuasive.

On pages 18-20 of the Response, Applicant argues that Baum does not teach classifying or assigning priority to all subsequent packets corresponding to the VOIP port.

Examiner respectfully disagrees.

Regarding assigning priority to the packets, Examiner believes that this limitation (assigning priorities) was never directly claimed in argued claims 11, 15 and 20.

Regarding classifying all subsequent packets corresponding to the VOIP port, Baum teaches classifying the packets as belonging to a particular VOIP connection (single conversation 7:41-55) and a VOIP port is essential part of this connection. Baum teaches sending all subsequent packets of the connection to defined VOIP port.

On pages 20-21 of the Response, Applicant argues that Klein does not teach extracting unmasked portion and matching it to a filtering table.

Examiner respectfully disagrees.

Klein teaching of the selected mask, emphasized by an Applicant, is not part of the Klein teaching used in the applicable rejection. Using numerous masks is not essential for the relevant portion of Klein, where he teaches applying the mask to a received packet and extracting an important part of the packet header for the comparison with a predefined value.



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Examiner therefore believes that the cited references meet all the claims limitations and the rejection is proper.

***Conclusion***

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dmitry Levitan whose telephone number is (571) 272-3093. The examiner can normally be reached on 8:30 to 4:30.

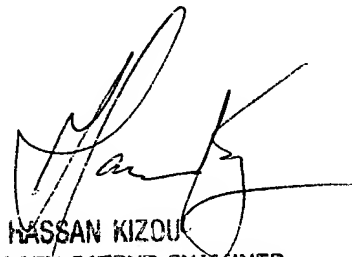
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (571) 272-3088. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Dmitry Levitan  
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12/08/04.



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